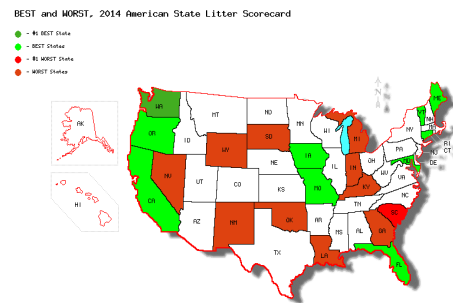


Summer August, 2014

# THE 2014 American State Litter Scorecard FINAL: Includes Scores, Charts

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**The 2014 American State Litter Scorecard FINAL: USA's Dirtiest & Cleanest States**  
*Includes Statistics and Charts*



**by Steve Spacek**

*The 2014 American Society for Public Administration National Conference*

**Mayflower Renaissance Hotel**

**Washington, District of Columbia, USA**

**Monday, March 17, 2014**

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## **ABSTRACT:**

A NEW State Litter "Scorecard" is released for the 2014 American Society for Public Administration (ASPA) Conference. Every three years, the Scorecard approximates each state's overall public spaces environmental quality through tried-and-true, hard-to-publicly obtain objective and subjective measures, resulting in a total overall jurisdictional score. Readers gain a realistic "picture" of "what's going on" within one or all of the 50 states. Illegal littering and dumping, found frequently on or near transportation paths, creates danger to public safety and health, with 800+ Americans dying each year by vehicle collisions with unmoved roadway debris. Because policy makers, public administrators and citizens are ever more involved in effectuating "green" outcomes, satisfactory public spaces waste removals are vital. Since 2008, major publications (the Boston Globe; TRAVEL+LEISURE; National Cooperative Highway Research Program's "Reducing Litter on Roadsides" Journal) have referred to the Scorecard, an ever valuable, trusted standard for improving debris/litter abatement in states and localities.

## **RESULTS:**

For 2014: Rounding out the topmost clean, or "Best," states are: #1 Washington, followed by California, Connecticut, Florida, Maine, Oregon, Vermont, Iowa, Maryland and Missouri.

Bringing up the lower end of the rankings, in last place, and rated dirtiest of all "Worst" states, is South Carolina, preceded by Nevada, Indiana, Georgia, Kentucky, Wyoming, South Dakota, Louisiana, Michigan, New Mexico and Oklahoma.

Regretfully, some states still do not collect important comparative litter data measures, nor yet to have made REAL differences in improving environmental conditions to protect citizenry health and welfare. Littering and dumping is a danger to public health, safety and welfare throughout the United States. Litter prevention and abatement remains a mandated function of American state governance.

## **ACKNOWLEDGEMENTS**

The Author wishes to personally thank and recognize the following for helping inspire, create and develop this research into this product:

James Thompson and Ian Trueblood, Waste Business Journal; Layne Piper, Environmental Council of the States; Amy Huber, Judy Miller and Patricia Yearwood, American Society for Public Administration; Patricia Shields, Texas State University; Chaz Miller, National Waste and Recycling Association; Susan Collins, Container Recycling Institute; Lyn Cianflocco, National Highway Transportation Safety Administration; Gerry Forbes, Intus Road Safety Engineering; Stephen Kleinschmit, Indiana-Purdue Universities at Fort Wayne; John McNutt, University of Delaware; Heather Wyatt-Nichol, University of Baltimore; Debra Atlas, Envirothink; and dozens of unnamed public servants from State DOT, Highway and Environmental Protection administration offices.

## **INTRODUCTION**

Littering and dumping<sup>1</sup> remain rampant ecological problems that create a danger to public health, safety and welfare throughout the 50 states of America.<sup>2</sup> Illicit solid wastes are often visibly found at or near public transportation routes; their unauthorized presence has been recognized in both trade periodicals and scholarly research as a dynamic shaping the moral fiber and crime-propensity, of a regime and inhabiting citizenry.<sup>3</sup> A well-researched, commonly-seen form of solid waste is roadside litter, which prominently features an “ugliness” damaging scenic environments, breeding diseases, insects and rodents, and causing serious injuries and deaths to animals and humans.<sup>4</sup> Though victim numbers have declined since 2008, over 800 Americans died in 2011 by result of vehicular collisions involving debris, and/or movable non-fixed objects.<sup>5</sup> All of these specified fatalities took place along public- provided thoroughfares inside the 50 states within a twelve-month documentation period.

### **Fallouts from Littering/Dumping on America’s Public Spaces**

The consequences of littering and dumping remain a significant social cost for many governments.<sup>6</sup> A notion of governmental neglect, and why particular humans choose to engage in discarding solid wastes onto public properties, remains at large.<sup>7</sup> At the same time, “unenthusiastic” public officials in particular American regions have continued to follow a “path of least resistance” in addressing externalities posing “... health threats,” as cultural and political “...maladies [leave] their ...land conditions [seriously contaminated]...”<sup>8</sup> Public litter prevention and abatement remains a mandated, primary activity in state, county and local regimes. From the 1970’s and well into the 21<sup>st</sup> Century, a staggering \$500-plus million has been spent by a combined public sector to combat littering and dumping.<sup>9</sup> Yet, in good and bad economic times, several regimes have engaged in unprincipled, improper administration. And, some have accomplished “relatively little,” employing instead “piecemeal” approaches to litter prevention and removals.<sup>10</sup>

### **Motivations for Litter Research and Prevention by Governments**

Public spaces and roadside litter prevention is a multiple stakeholder activity for states and their counties and localities. The “Green” movement is gaining widespread credence among the 310-plus million populating America’s states. Policymakers and public administrators are accountable to both the law and oft-elected political leaders. Effective performances are obligatory with many, if not all, modern-day governments. Thus, political leaders, public servants, organizations and citizens alike, are ever more interested in effectual service delivery outcomes.<sup>11</sup>

Scientific research can be extremely valuable to government. Contemporary data analysis has made inroads at reducing fraud, preventing crime, ferreting out waste, while helping to respond to and understand trends.<sup>12</sup> Costs to capture, store and process data are at their lowest for any time in history.<sup>13</sup> Accessible information makes it easier for legislators and stakeholders alike to drill down the facts, creating conditions for more informed decision-making.<sup>14</sup>

Litter prevention and removals are forms of “clear-cut,” direct public services, where developing good measures has become a reasonable pursuit.<sup>15</sup> However, the 50 states do not count waste consistently,<sup>16</sup> with some failing in establishing and providing generally agreed-upon performance measures with common definitions.<sup>17</sup> Necessary yet missing jurisdictional data can include the actual waste collected from a regime’s public spaces, by mileage and location; operating budget funding sources and expenditures; number of eradication performance standard surveys conducted; number of persons cited and prosecuted by law enforcement for infractions; citizen surveys on abatement performance

evaluations. Some authorities in America still stubbornly choose to act deficient and reprehensible in efforts to collect and publicly release reliable, honest, uniform data and outcomes for facilitating research comparisons. Principles of “open” data<sup>18</sup> have been written into decrees, yet a “fear” of data disclosure by a number of administrations remains.<sup>19</sup>

## **Public Physical, Legal Source Reduction Activities in 2014**

Source reduction<sup>20</sup> practices play a big role in the decline of solid wastes on both public and private properties in the United States.<sup>21</sup> Physical and legal practices for source reductions in the 50 United States include litter abatements, behavior-controlling slogans, environmental group efforts, waste recycling- beverage deposit programs and taxation provisions, complemented with prescribed litter laws, enforcement efforts and court prosecutions.

Litter eradication provides a legislatively authorized, non-regulatory source reduction “solution.”<sup>22</sup> Identified activities include cleanups of interstate and state, county and local roadways, beaches, rivers, streams, trails, greenways and other public spaces by mandated correctional crews or community service, hired contractors, work furloughs, juveniles, volunteers and non-profit organizations.<sup>23</sup> States may limit the number of eradications per year and can define specific standards constituting a cleanup. 48 of the states operate a voluntary, privatized Adopt-A-Highway/Road program.<sup>24</sup> As of March 2014, roughly 30 states had a unique, recognized, uniform slogan found in both counties and cities, used on public signage and/or in media campaigns, to boost environmental awareness in resisting illegal littering and dumping behaviors (decline from 37 having these mottos in 2011). Also in 2014, with the addition of Vermont, twelve states mandate jurisdiction-wide comprehensive recycling of disposed trash volumes, actions noted for a providing energy cost savings to commercial interests.<sup>25</sup> As in 2011, ten states provide litter-reducing beverage deposit container legislation, while five governments levy litter taxes on “...certain goods which contribute to solid waste...to finance litter control, solid waste and recycling activities.”<sup>26</sup>

Statutes, enforcement efforts and court prosecutions are part of a “comprehensive response to environmental violators” used to help curtail littering.<sup>27</sup> Anti-litter provisions exist in every single American state. These statutes are enforced less for aesthetic concerns, but more so as primary public safety mechanisms.<sup>28</sup> The necessity of state law enforcement officers to witness any and all illegal waste throwing- onto-public spaces actions before writing citations, has allowed poor to almost no real enforcement in some [states], “...[leaving them] with seriously contaminated [lands].”<sup>29</sup> In most American places, the incriminated faces a court prosecution. States use monetary civil and criminal penalties, with only a few regimes exercising vehicle impoundments, as the “...common strategy[s] use[d] to control [illegal] environmental behaviors.”<sup>30</sup> Few convicted wrongdoers encounter a decisive punishment of incarceration.<sup>31</sup>

## **DATA AND METHODOLOGY**

The 2008 American State Litter Scorecard<sup>32</sup> was the first research attempt to rank states on litter eradication in advancing overall jurisdictional environmental quality, using existing, hard-to-find yet suitable data sources. Until that time, no researcher in the world had attempted to rank America’s 50 states, or any known government state, provinces and territories, for their public spaces cleanliness that could lead to an approximate, yet measurable, jurisdictional environmental quality condition. Back in 2008, an original measurement project was fashioned from existing, hard-to-find yet suitable data sources. The initial Scorecard’s popularity led to the creation of the 2011 and current, up-to-date versions.

To explain an overall environmental quality outcome for states, and to meet academic principles stipulating use of noteworthy, accurate, reliable, up-to-date data, a choice was made to use objective and subjective factors, each with exclusive, equal measurement weight. As seen in 2011 and 2008, the

territorial, spatial American state remains the Scorecard's unit of analyses.<sup>33</sup> All research data were at the interval or ratio level of measurement and were drawn from a random sample and deemed valid. Data source providers include government entities and nationally-recognized resources drawn upon by respected, principled, scholarly researchers: reputable academicians, trade organizations, think tanks and associations eminent for benefitting broad groups of public stakeholders. A majority of indicators focus on physical source reduction activities, since legal source reduction gauge choices were deemed exceedingly time consuming and hard to extract for meeting research budgetary constraints. However, the existence of limited hard data lends each objective indicator to satisfactorily provide a suitable, unique standing per state. Every subjective indicator, measuring supplementary public-sector evaluations, is added along with objective indicators into a hand-calculated sum total. The total scores of the indicators collectively demonstrate an approximation, of a regime's public spaces overall quality conditions. Thus, public thoroughfares (where research and removals of illegal littering and public waste volumes mostly take place), and involved governmental customs have become focuses for indicator measurement attention in the Scorecard.

For the 2014 Scorecard presentation, powerful, concentrated, never-used measurements were added to replace from 2011, two objective indicators (Integrity of State Thoroughfare Maintenance Disbursement Costs and State Public Corruption Convictions per Population Proportion) and one subjective marker (Environmental Responsibility Reputation of State Governors). These new indicators are the one objective, *Percentage "Profiled Litterers" (Age 16-25) Per State*<sup>34</sup> value and two subjective, *Environmental Stewardship of State Thoroughfares*<sup>35</sup> and *Overall Corruption Risk in Public Service Activities by State Governments*<sup>36</sup> markers.

The final approved and accepted nine objective determinants for the 2014 Scorecard include *States with Litter Taxation*;<sup>37</sup> *States with Container Deposit Rules/Legislation*<sup>38</sup>; *States with Comprehensive Recycling Rules/Legislation*;<sup>39</sup> *Authorities with State-Specific Litter Prevention Slogans*;<sup>40</sup> *Per Person Overall State Environmental Expenditures*;<sup>41</sup> *Per Person Daily Waste Disposal by State*;<sup>42</sup> *States with Highest Chance for Debris-related Fatal Vehicle Collision*;<sup>43</sup> and *Percentage Profiled Litterers Age 16-25 by State* (see Table 1). The three subjective determinants approved and scrutinized as supplementary assessment criteria are *Environmental Stewardship of State Thoroughfares*, *State Licensed Drivers Knowledge of Littering and other Road Laws*<sup>44</sup> and *Overall Corruption Risk in Public Service Activities by State Governments* (see Table 2).



## **Table 1: Objective Data**

States with Litter Taxation (2013)  
States with Container Deposit Rules/Legislation (2013)  
States with Comprehensive Recycling Rules/Legislation (2013)  
States with Litter Prevention Slogans (2014)  
Per Person Overall State Environmental Expenditure (2012)  
Per Person Daily Waste Disposal by State (2012)  
States with Highest Chance for Debris-related Fatal Vehicle Collision (2011)

## **Table 2: Subjective Data**

Environmental Stewardship of State Thoroughfares (2011)  
State Licensed Drivers Knowledge of Littering and other Road Laws (2011)  
Overall Corruption Risk in Public Service Activities by State Governments (2013)

As with the previous Scorecards, an analytic scoring rubric was created, with multipoint designations to score state responses for varying levels of chosen objective and subjective factors--each factor having separate yet equal influence. Scoring determinants *States with Litter Taxation* (OB1); *States with Container Deposit Rules/Legislation* (OB2); *States with Comprehensive Recycling Rules/Legislation* (OB3) and *Authorities with State-Specific Litter Prevention Slogans* (OB4) required splitting up the 50 states into those having a mentioned characteristic and those that did not. These determinants have only two values; thus, dichotomous. "States with" will have a score of +5.0; "States without" are assigned a value of 0.0. *Per Person Overall State Environmental Expenditure* (OB5); *Per Person Daily Waste Disposal by State* (OB6); *Percentage Profiled Litterers Age 16-25 by State* (OB8); *State Licensed Drivers Knowledge of Littering and other Road Laws* (SU2) and *Overall Corruption Risk in Public Service Activities by State Governments* (SU3) are positively scored on a 0.5 point scale, per increments of five states, based on the degree of an attribute possessed, and from a base 0.0 score. Data for *States with Highest Chance for Debris-related Fatal Vehicle Collisions* (OB7) are to be construed in a negative light and are thus scored accordingly. Nearly all states bore an accident claiming one or more human lives by debris-vehicle collisions, in FY 2011, excluding Alaska and Vermont—both having no fatalities.<sup>45</sup> Thus, *Fatal Vehicle Collisions* start at a strict, -1.0 base score point scale. Finally, the objective determinant *Environmental Stewardship of State Thoroughfares* (SU1) has only three scores: +1.0 for governments "trailing behind others," +3.0 for "mixed"--not trailing but not leading regimes, and +5.0 for those 16 states that are topmost leaders in maintenance practices respecting the environment.

Scores for each individual objective and subjective factor were then calculated and aggregated for every single state. Hierarchical statuses amongst these jurisdictions were determined after the completed summative computations. From these computations, the author designated (from top to bottom, respectively) the ten "Best," "Above Average," "Below Average" and "Worst" designations for overall public spaces cleanliness conditions. The handful of middle range scoring states between "above average" and "below" were deemed "Average." Table 3 presents tabular data of individual states, the eleven measurement indicators, and final scores for each state. Table 4 lists the Scorecard national rankings and status designations for all governments. Table 5 provides "best" results; Table 6, the "worst" states. Figure 1 displays a color map of the states and those having a "best" or "worst" national condition status. Table 7 provides the "best" and "worst" by their inclusion inside four geographically-distinct American regions: Northeast, South, Midwest and West.

**Table 3: Individual Indicators, Indicator Scores and Final Results: The 2014 American State Litter Scorecard**

State	OB1	OB2	OB3	OB4	OB5	OB6	OB7	OB8	SU1	SU2	SU3	Final
<b>AL</b>	0.0	0.0	0.0	+5.0	+1.0	+3.0	-2.5	+1.5	+1.0	+2.0	+3.0	<b>+14.0</b>
<b>AK</b>	0.0	0.0	0.0	+5.0	+4.5	0.0	-1.0	0.0	+1.0	+1.0	+1.5	<b>+12.0</b>
<b>AZ</b>	0.0	0.0	0.0	+5.0	+4.0	+1.5	-2.5	+1.5	+3.0	+2.0	+2.0	<b>+16.5</b>
<b>AR</b>	0.0	0.0	0.0	+5.0	+2.5	+2.0	-4.5	+3.0	+3.0	+2.0	+2.0	<b>+15.0</b>
<b>CA</b>	0.0	+5.0	+5.0	+5.0	+3.5	+3.5	-2.5	0.0	+5.0	+1.5	+4.5	<b>+30.5</b>
<b>CO</b>	0.0	0.0	0.0	+5.0	+0.5	+0.5	-1.5	+3.0	+5.0	+4.5	+1.5	<b>+18.5</b>
<b>CT</b>	0.0	+5.0	+5.0	0.0	+3.0	+4.5	-1.5	+3.5	+5.0	+1.5	+4.5	<b>+30.5</b>
<b>DE</b>	0.0	0.0	+5.0	0.0	+5.0	+2.0	-2.0	+2.0	+3.0	+1.5	+2.5	<b>+19.0</b>
<b>FL</b>	0.0	0.0	+5.0	+5.0	+1.0	+4.0	-1.5	+4.5	+5.0	+1.0	+3.0	<b>+27.0</b>
<b>GA</b>	0.0	0.0	0.0	+5.0	+0.5	+1.0	-4.0	+0.5	+3.0	+0.5	0.0	<b>+6.5</b>
<b>HI</b>	0.0	+5.0	0.0	0.0	+5.0	+4.0	-1.0	+4.0	+1.0	0.0	+3.5	<b>+21.5</b>
<b>ID</b>	0.0	0.0	0.0	+5.0	+3.5	+2.0	-4.5	+1.0	+5.0	+3.5	+0.5	<b>+16.0</b>
<b>IL</b>	0.0	0.0	0.0	+5.0	+1.5	+1.5	-2.5	+2.0	+3.0	+0.5	+3.5	<b>+14.5</b>
<b>IA</b>	0.0	+5.0	0.0	+5.0	+0.5	+3.0	-1.5	+1.0	+3.0	+4.5	+4.0	<b>+24.5</b>
<b>IN</b>	0.0	0.0	0.0	0.0	+2.0	0.0	-4.5	+1.0	+1.0	+4.0	+2.5	<b>+6.0</b>
<b>KS</b>	0.0	0.0	0.0	+5.0	+1.5	+1.0	-5.0	+0.5	+3.0	+4.5	+4.0	<b>+14.5</b>
<b>KY</b>	0.0	0.0	0.0	0.0	+2.0	+0.5	-5.0	+3.5	+1.0	+2.5	+3.0	<b>+7.5</b>
<b>LA</b>	0.0	0.0	0.0	+5.0	+2.5	0.0	-4.5	+1.0	+1.0	+1.0	+3.5	<b>+9.5</b>
<b>ME</b>	0.0	+5.0	+5.0	0.0	+4.0	+3.5	-3.0	+4.5	+5.0	+3.0	0.0	<b>+27.0</b>
<b>MD</b>	0.0	0.0	+5.0	+5.0	+4.0	+4.5	-4.5	+3.0	+5.0	0.0	+1.0	<b>+23.0</b>
<b>MA</b>	0.0	+5.0	0.0	0.0	+0.5	+4.5	-2.0	+1.5	+3.0	0.0	+3.5	<b>+16.0</b>
<b>MI</b>	0.0	+5.0	0.0	0.0	+3.0	+0.5	-3.5	+1.0	+1.0	+2.5	+0.5	<b>+10.5</b>
<b>MN</b>	0.0	0.0	0.0	0.0	+3.0	+4.5	-2.5	+4.0	+5.0	+4.0	+2.5	<b>+20.5</b>
<b>MS</b>	0.0	0.0	0.0	+5.0	+4.5	+2.0	-1.5	+0.5	+1.0	0.0	+4.0	<b>+15.5</b>
<b>MO</b>	0.0	0.0	0.0	+5.0	+3.5	+4.0	-4.5	+2.5	+5.0	+4.0	+3.0	<b>+22.5</b>

**OB1:** States with Litter Taxation (2013)**OB2:** States with Container Deposit Rules/Legislation (2013)**OB3:** States with Comprehensive Recycling Rules/Legislation (2013)**OB4:** Authorities with State Specific Litter Prevention Slogan (2014)**OB5:** Per Person Overall State Environmental Expenditure (2012)**OB6:** Per Person Daily Waste Disposal by State (2012)**OB7:** States with Highest Chance for Debris-related Fatal Vehicle Collision (2011)**OB8:** Percentage “Profiled Litterers” (Age 16-25) Per State (2012)**SU1:** Environmental Stewardship of State Thoroughfares (2011)**SU2:** State Licensed Drivers Knowledge of Littering and other Road Laws (2009)**SU3:** Overall Corruption Risk in Public Service Activities by State Governments (2013)

State	OB1	OB2	OB3	OB4	OB5	OB6	OB7	OB8	SU1	SU2	SU3	Final
MT	0.0	0.0	0.0	0.0	+4.5	+1.0	-4.0	+3.5	+3.0	+3.5	+1.5	+13.0
NE	0.0	0.0	0.0	+5.0	+2.5	+1.0	-3.0	+2.5	+3.0	+4.0	+4.5	+19.5
NV	0.0	0.0	0.0	0.0	+2.0	+1.5	-4.0	+4.0	+1.0	+0.5	+0.5	+5.5
NH	0.0	0.0	0.0	+5.0	+5.0	+4.0	-2.0	+3.5	+3.0	+1.0	+1.5	+21.0
NJ	+5.0	0.0	+5.0	0.0	+1.0	+4.5	-3.0	+4.0	+1.0	0.0	+4.5	+22.0
NM	0.0	0.0	0.0	+5.0	0.0	+1.0	-5.0	+2.0	+3.0	+3.0	+1.0	+10.0
NY	0.0	+5.0	0.0	+5.0	+3.0	+4.0	-3.5	+1.5	+5.0	+0.5	+1.0	+21.5
NC	0.0	0.0	0.0	+5.0	+3.0	+3.0	-3.0	+2.5	+5.0	+1.0	+2.5	+19.0
ND	0.0	0.0	0.0	+5.0	+2.5	+2.5	-4.0	0.0	+3.0	+2.5	+0.5	+12.0
OH	+5.0	0.0	0.0	0.0	+1.5	+2.5	-2.0	+3.0	+1.0	+3.0	+1.5	+15.5
OK	0.0	0.0	0.0	+5.0	+1.0	+1.5	-5.0	+1.0	+3.0	+3.0	+1.0	+10.5
OR	0.0	+5.0	+5.0	0.0	+2.0	+0.5	-2.0	+4.0	+5.0	+4.0	+3.5	+27.0
PA	0.0	0.0	+5.0	+5.0	+4.0	+2.0	-3.5	+2.5	+1.0	+2.0	+3.0	+21.0
RI	+5.0	0.0	+5.0	0.0	+3.5	+0.5	-2.0	0.0	+5.0	+0.5	+4.0	+21.5
SC	0.0	0.0	0.0	0.0	+1.0	0.0	-3.0	+1.5	+1.0	+1.5	+0.5	+2.5
SD	0.0	0.0	0.0	0.0	+4.0	+3.5	-5.0	+2.0	+1.0	+3.5	0.0	+9.0
TN	0.0	0.0	0.0	+5.0	+1.5	+2.5	-2.5	+3.0	+3.0	+2.0	+4.0	+18.5
TX	0.0	0.0	0.0	+5.0	+0.5	+2.5	-3.5	+0.5	+3.0	+1.5	+2.0	+11.5
UT	0.0	0.0	0.0	+5.0	+1.5	+3.0	-3.5	0.0	+5.0	+2.5	+1.0	+14.5
VT	0.0	+5.0	+5.0	0.0	+4.5	+3.5	-1.0	+0.5	+3.0	+3.0	+2.0	+25.5
VA	+5.0	0.0	0.0	0.0	+2.0	+1.5	-2.5	+2.0	+5.0	+2.0	0.0	+15.0
WA	+5.0	0.0	+5.0	+5.0	+2.5	+3.5	-1.0	+3.5	+5.0	+3.0	+4.5	+36.0
WV	0.0	0.0	0.0	+5.0	+5.0	+2.5	-4.0	+4.5	+1.0	+2.5	+2.0	+18.5
WI	0.0	0.0	+5.0	0.0	+3.5	+3.0	-5.0	+3.0	+3.0	+3.5	+2.5	+18.5
WY	0.0	0.0	0.0	0.0	+4.5	0.0	-4.0	+2.5	+1.0	+3.5	0.0	+7.5

**OB1:** States with Litter Taxation (2013)

**OB2:** States with Container Deposit Rules/Legislation (2013)

**OB3:** States with Comprehensive Recycling Rules/Legislation (2013)

**OB4:** Authorities with State Specific Litter Prevention Slogan (2014)

**OB5:** Per Person Overall State Environmental Expenditure (2012)

**OB6:** Per Person Daily Waste Disposal by State (2012)

**OB7:** States with Highest Chance for Debris-related Fatal Vehicle Collision (2011)

**OB8:** Percentage “Profiled Litterers” (Age 16-25) Per State (2012)

**SU1:** Environmental Stewardship of State Thoroughfares (2011)

**SU2:** State Licensed Drivers Knowledge of Littering and other Road Laws (2011)

**SU3:** Overall Corruption Risk in Public Service Activities by State Governments (2013)

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**Table 4: National Rankings and Status Designations for the 2014 American State Litter Scorecard**

<b><u>State</u></b>	<b><u>Status Rating</u></b>
<b>1 Washington-----</b>	<b>BEST</b>
2 California	BEST
2 Connecticut	BEST
4 Florida	BEST
4 Maine	BEST
4 Oregon	BEST
7 Vermont	BEST
8 Iowa	BEST
9 Maryland	BEST
10 Missouri	BEST
11 New Jersey	ABOVE AVERAGE
12 Hawaii	ABOVE AVERAGE
12 New York	ABOVE AVERAGE
12 Rhode Island	ABOVE AVERAGE
15 New Hampshire	ABOVE AVERAGE
15 Pennsylvania	ABOVE AVERAGE
17 Minnesota	ABOVE AVERAGE
18 Nebraska	ABOVE AVERAGE
19 Delaware	ABOVE AVERAGE
19 North Carolina	ABOVE AVERAGE
21 Colorado	AVERAGE
21 Tennessee	AVERAGE
21 West Virginia	AVERAGE
21 Wisconsin	AVERAGE
25 Arizona	AVERAGE
26 Idaho	AVERAGE
26 Massachusetts	AVERAGE
28 Mississippi	BELOW AVERAGE
28 Ohio	BELOW AVERAGE
30 Arkansas	BELOW AVERAGE
30 Virginia	BELOW AVERAGE
32 Illinois	BELOW AVERAGE
32 Kansas	BELOW AVERAGE
32 Utah	BELOW AVERAGE
35 Alabama	BELOW AVERAGE
36 Montana	BELOW AVERAGE
37 Alaska	BELOW AVERAGE
37 North Dakota	BELOW AVERAGE
39 Texas	BELOW AVERAGE
40 Oklahoma	WORST
41 Michigan	WORST
41 New Mexico	WORST
43 Louisiana	WORST
44 South Dakota	WORST
45 Kentucky	WORST
45 Wyoming	WORST
47 Georgia	WORST
48 Indiana	WORST
49 Nevada	WORST
<b>50 South Carolina-----</b>	<b>WORST</b>

**Table 5: “Best” Governments of The 2014 American State Litter Scorecard**

<b>1 Washington.....</b>	<b><i>BEST</i></b>
<b>2 California</b>	<b>BEST</b>
<b>2 Connecticut</b>	<b>BEST</b>
<b>4 Florida</b>	<b>BEST</b>
<b>4 Maine</b>	<b>BEST</b>
<b>4 Oregon</b>	<b>BEST</b>
<b>7 Vermont</b>	<b>BEST</b>
<b>8 Iowa</b>	<b>BEST</b>
<b>9 Maryland</b>	<b>BEST</b>
<b>10 Missouri</b>	<b>BEST</b>

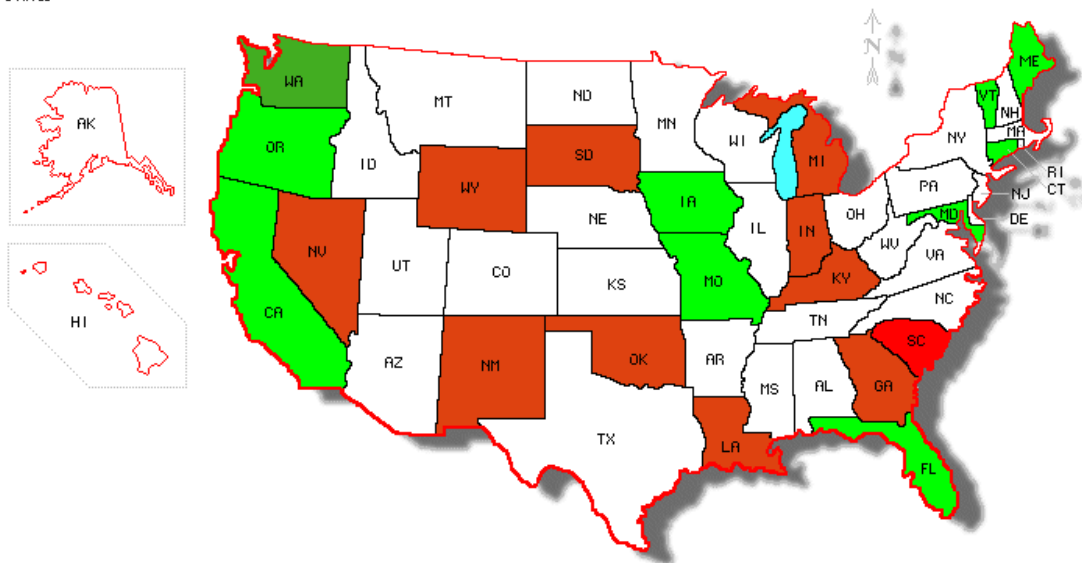
**Table 6: “Worst” Governments of The 2014 American State Litter Scorecard**

<b>1 South Carolina.....</b>	<b><i>WORST</i></b>
<b>2 Nevada</b>	<b><i>WORST</i></b>
<b>3 Indiana</b>	<b><i>WORST</i></b>
<b>3 Georgia</b>	<b><i>WORST</i></b>
<b>5 Kentucky</b>	<b><i>WORST</i></b>
<b>5 Wyoming</b>	<b><i>WORST</i></b>
<b>7 South Dakota</b>	<b><i>WORST</i></b>
<b>8 Louisiana</b>	<b><i>WORST</i></b>
<b>9 Michigan</b>	<b><i>WORST</i></b>
<b>9 New Mexico</b>	<b><i>WORST</i></b>
<b>10 Oklahoma</b>	<b><i>WORST</i></b>

**Figure 1: Map of “Best,” “Worst” Governments Results of The 2014 American State Litter Scorecard**

**BEST and WORST, 2014 American State Litter Scorecard**

- - #1 BEST State
- - BEST States
- - #1 WORST State
- - WORST States





**Table 7: Regional “Best” and “Worst” Governments of The 2014 American State Litter Scorecard**

<b>NORTHEAST REGION</b>	<b>SOUTH REGION</b>	<b>MIDWEST REGION</b>	<b>WEST REGION</b>
<b><u>Best</u></b> <i>2 Connecticut</i> <i>4 Maine</i> <i>7 Vermont</i> <i>9 Maryland</i>	<b><u>Best</u></b> <i>4 Florida</i>	<b><u>Best</u></b> <i>8 Iowa</i> <i>10 Missouri</i>	<b><u>Best</u></b> <i>1 Washington</i> <i>2 California</i> <i>4 Oregon</i>
<b><u>Worst</u></b> <b>NOT ANY</b>	<b><u>Worst</u></b> <i>50 South Carolina</i> <i>47 Georgia</i> <i>45 Kentucky</i> <i>43 Louisiana</i> <i>40 Oklahoma</i>	<b><u>Worst</u></b> <i>48 Indiana</i> <i>41 Michigan</i>	<b><u>Worst</u></b> <i>49 Nevada</i> <i>45 Wyoming</i> <i>44 South Dakota</i> <i>41 New Mexico</i>

## **FINDINGS**

In finalizing completion of the Scorecard research for 2014, each of the state governments were assigned an unique status for overall public spaces cleanliness condition: “Best,” “Above Average,” “Average,” “Below Average” or “Worst.” Ten states qualified for a prized “best” state eminence, scoring from a topmost range of +36.0 for Washington State (for a second time, the national leader in clean public spaces!) to Missouri, with +22.5. On the opposite end, eleven authorities received a lowly, “worst” moniker. Longtime, consistent repeat offenders South Carolina and Nevada had the tiniest total final scores, at +2.5 and +5.5 respectively, while Oklahoma, at +10.5, barely defeated Texas to be included with America’s highly rubbished, clean-deprived cluster. “Above Average” was assigned to fourteen regimes, from New Jersey’s +22.0 to four-way-tied Colorado, Tennessee, West Virginia, and Wisconsin--all with a +18.5 mark. Once “worst” Texas moved up one status designation, with a +11.5 score, to be the lowermost of the “below average” group, while (once “average”) Ohio and (2008 Scorecard bottom-“worst”) Mississippi tied to be +15.5. Only three states—Arizona, Massachusetts and Idaho—scored in a middle +16.5 to +16.0, range, between “above” and “below,” to warrant a national standing of “average.”

### **Noteworthy Indicator Outcomes**

From looking at final results of eleven 2014 Scorecard measurement indicators, its notable to find:

- Only five states tax sources of solid waste: New Jersey, Ohio, Rhode Island, Virginia and Washington;
- Ten states have litter -reducing Container Deposits legislation;
- 13 offer regime-wide Comprehensive Recycling;
- 30 have state-specific anti-littering slogans, inclusively covering all public spaces of their counties and cities;
- New Mexico spent the least per year and per person, on Environmental Protection, while West Virginia disbursed the greatest;
- Per day, residents of Indiana discarded the most un-recycled items going into landfills and incinerators, while those in Connecticut disposed the least;
- New Mexico has the highest chance for a person to be killed from a vehicle crash with public roadway litter-debris; Alaska and Vermont tie for least chance;
- Utah has the utmost percentage of “profiled litterers” age 16-25 (those prone or willing to litter); Maine has the fewest for that group;
- 16 states “trail behind” others in suitable environmental stewardship of public thoroughfares;
- Both Hawaii’s and Maryland’s Licensed Drivers have the least Knowledge of Littering and other Roadway Laws, while Kansans had the best familiarity;
- The highest “risk” for corruption in public service activities by state legislators and employees occurs in Georgia, while New Jersey has the lowest occurrence.

## **Common Traits of “Best” States**

The “best” states of the 2014 American State Litter Scorecard are listed in Tables 5 and 7, and geographically mapped in Figure 1. A majority of these 10 authorities were leaders at Environmental Stewardship of Thoroughfares, enjoying Comprehensive Recycling Rules/Legislation and State-Specific Litter Prevention Slogans, and, below average Per Person Daily Waste Disposals and Chances for Debris-related Fatal Vehicle Collisions. Over half have smaller than average population percentages of “Profiled litterers” age 16-25. Half of the “best” states had favorable, less than average “risks” for Corruption in their Public Service Activities. Almost half had above average Licensed Driver Knowledge of Litter and other Road Laws and above average Per Person Overall State Environmental Expenditures. Almost all had no Litter Taxation.

Four of the “best” states are in the Northeast; three in the West; two in the Midwest; only one is found in the South (see previous Table 7).

## **Common Traits of “Worst” States**

The “worst” states of the 2014 American State Litter Scorecard are listed in Tables 6 and 7, and geographically mapped in Figure 1. Nearly all in the “worst” category had smaller than average population percentages of “Profiled litterers” age 16-25—indicator percentages similarly corresponding with the winners of the “best” designation. Yet, not one of the bottom-performing eleven entities had enacted Litter Taxation or Comprehensive Recycling Rules/Legislation, and most had well-above average Per Person Daily Waste Disposals and excessively high Chances for Debris-related Fatal Vehicle Collisions. Also, the bulk of those “feebly un-Green” had no Container Deposit Rules/Legislation, no State-Specific Litter Prevention Slogans, below-average Per Person Overall State Environmental Expenditures, plus unfavorable, higher than average “risks” for Corruption in Public Service Activities--“trailing behind” nearly everyone else on Environmental Stewardship of Thoroughfares. Furthermore, practically half of the “worst” governments had below-average Licensed Driver Knowledge of Litter and other Road Laws.

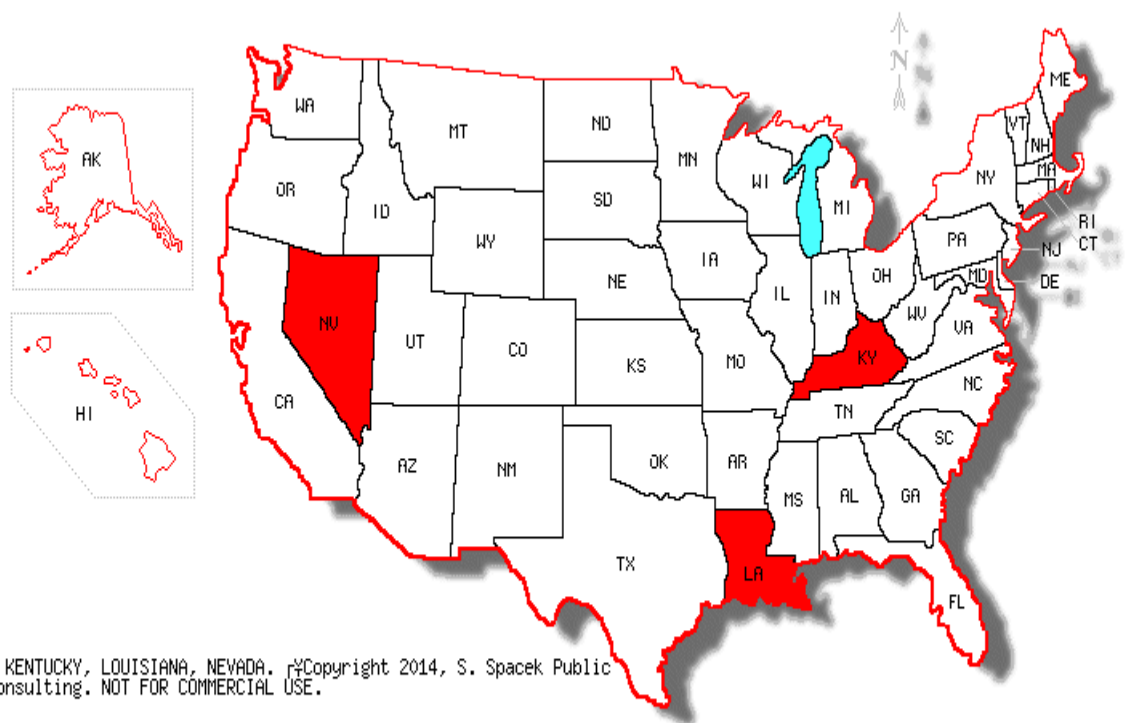
Five of the “worst” states are in the South, with four found in the West and two in the Midwest. There are no deficient authorities located in the Northeast (see previous Table 7).

## **National Status Designations**

Fifty authorities have improved, held onto or let fall a unique national status for overall public spaces cleanliness. Since the original 2008 Scorecard version, Nevada, Louisiana and Kentucky continue to be steadfast “worst” and dirtiest governments (see Figure 2), while Nebraska un-wavers in an “above average” position. Connecticut, Iowa, Maine and Vermont consistently prevail among America’s “best” and cleanest (see Figure 3). Thirteen states saw standings improve during this six year period, but 15 experienced a long-term, downward trend (see Figure 4); 11 had vacillating outcomes, with Delaware, Hawaii and New York by far the most inconsistent (see Figure 5). The biggest status enhancements (moving from “worst/below average” up to “best”) from 2008 to 2014 were made by the three governments of California, Florida, Missouri, whereas, in the opposite direction, Wyoming, Virginia, South Dakota and Kansas were four regimes subject to steep national status designation declines (see Figure 6).

**Figure 2: Enduring “Worst” Governments, 2008 through 2014 American State Litter Scorecards**

Persistent “Worst” Governments: 2008 thru 2014 Scorecards

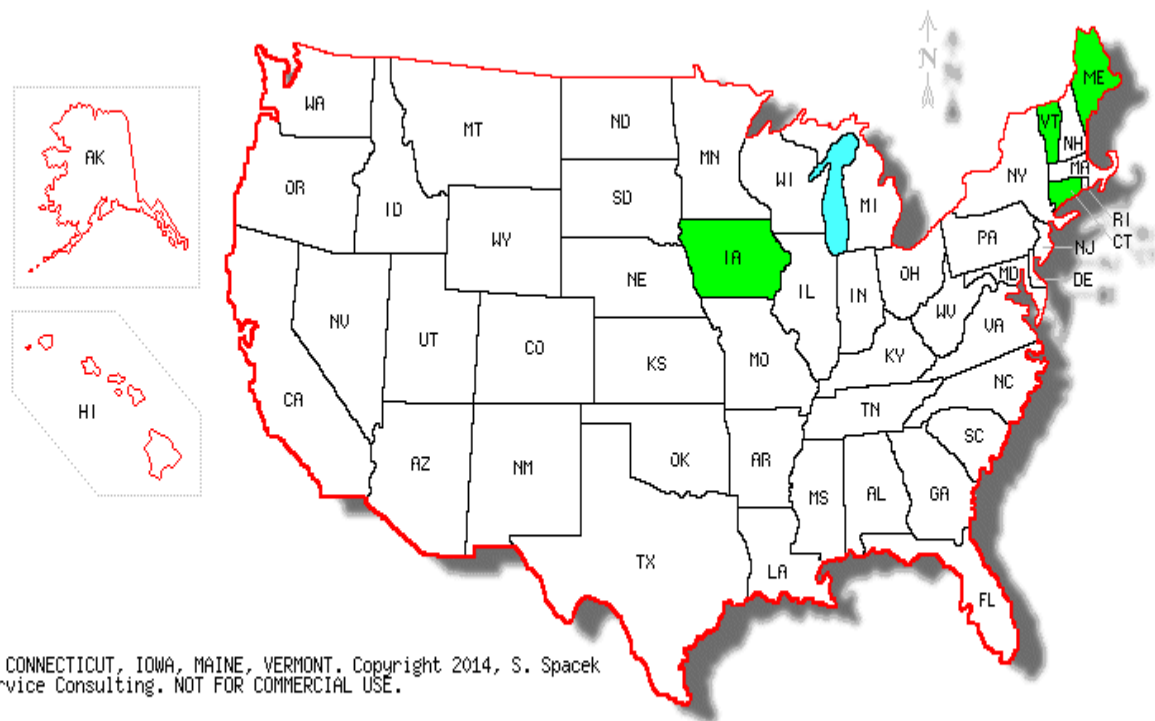


Source: diymaps.net (c)

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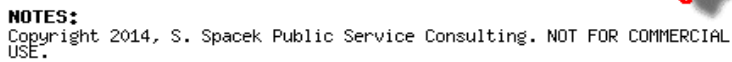
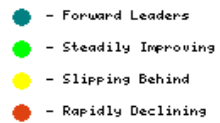
**Figure 3: Prevailing “Best” Governments, 2008 through 2014 American State Litter Scorecards**

Reigning "Best" Governments: 2008 thru 2014 Scorecards



Source: diymaps.net (c)

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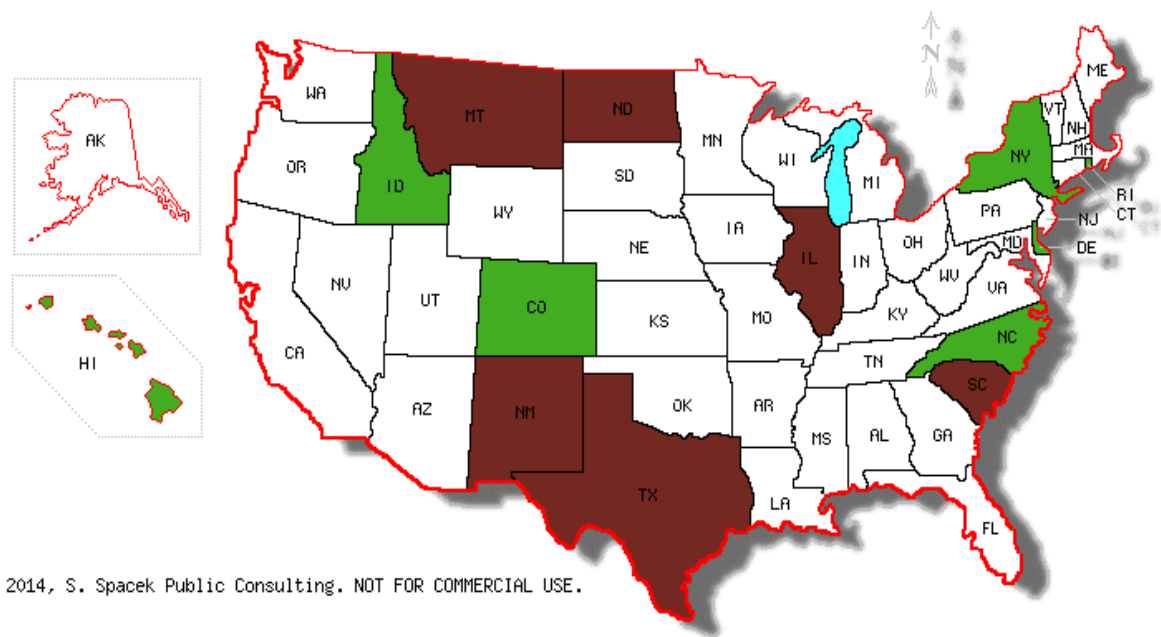


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**Figure 5: Wavering National Status Designations, 2008 through 2014 American State Litter Scorecards**

**Vulnerable Status Designations, 2008 thru 2014 Scorecard**

- - Tends Tidy not Dirty
- - Tends Dirty not Tidy

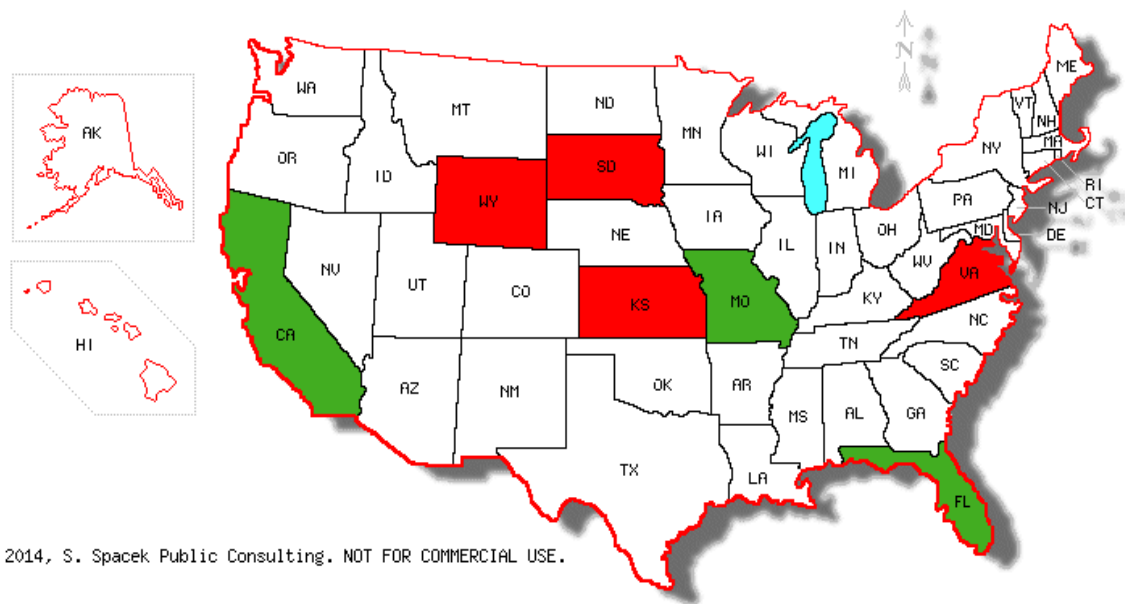


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**Figure 6: BIGGEST Status Designation Gainers and Failures, 2008 through 2014 American State Litter Scorecards**

**Biggest Status Winners & Losers, 2008 thru 2014 Scorecard**

- - Biggest Gainers
- - Biggest Losers



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## **Integrity and Political Criticism**

Scientific research is an extremely valuable tool, typically conducted either to address problems or develop knowledge where none exists, providing useful data to respond to and understand trends.<sup>46</sup> Before the year 2008, no researcher had attempted to rank the 50 states on the environmental quality and practices of public space/roadside litter eradication and related behaviors. And, prior to the first published Scorecard, this author had veteran political campaign experience and strong undergraduate work from (at that time) a leading political science school of higher education for his region of the United States. Steve Spacek has admitted experiencing real-world difficulties and complexities of obtaining public performance numbers from state governments, some who in this modern day choose to not cooperate with researchers. Some governments are unwilling to make public and transparent such data to taxpayers and voters. They try to use tactics, such as charging citizenry or inquirers a fee, due to an obsession with self-preservation, fear or unknown political consequences that usually do not benefit the public interest. Our general culture does not promote trusting attitudes toward those researchers who make claims of having high integrity and a desire to not make false claims or promises.<sup>47</sup> Because it is extremely difficult to measure actual, real world results, analysts often turn to data elements that adequately function to address public problems or develop non-existent knowledge. Thus, commonplace “surrogates” have become very useful in public (and private) performance management.<sup>48</sup>

Since the initial Scorecard presentation, and addition of a monthly scorecard website in 2012, a few individuals have attacked results as being politicized or biased, favoring or disfavoring a governing partisan political party, or region or group of states over another. The three Scorecards have indeed noted a consistent, poor outcomes correlation with governments experiencing overall, “conservative” executive political governance and having a non-West-East Coast geographic location. [Since 2011, TRAVEL+LEISURE’S “America’s Dirtiest Cities” poll by readers and residents has noted the Scorecard in its annual “Favorite Cities” series, finding that large populated cities --located east of a drawn line from Texas to Illinois, and often with “liberal” executive governance— had poor outcomes similar to “worst” Scorecard states]. Americans have been rightfully exposed to a decades-old democratic concept, that the “direct voices of the public call for direct accountability” to the people whom they have elected.<sup>49</sup> Yet, getting reformist policies to be approved by government, regardless of evidence that they may work, is by and large a political process.<sup>50</sup>

Measuring can be tough. The final results are an approximation, and not a hard and fast conclusion, that the Scorecard results are a helpful guide-- a revelation that should not be deemed as definitive causation markers...but pretty close.

## **CONCLUSION**

For over three decades, polls have indicated that a majority of Americans believe the public sector “[is] not working enough to protect the environment, and that economic growth should be sacrificed to do so.”<sup>51</sup> The lengthy budget shortfall crisis affecting American States appears to hamper some states litter abatement efforts. Studies show state legislatures and assemblies have most of the negotiating power in creating effective administrative practices and passing new laws. Yet, before the onslaught of fiscal dilemmas starting around 2008, certain regimes chose to engage in historically poor removal performances, providing citizens with unpleasant ecological conditions, year in and year out, affecting loss of tourism and reduced economic development. Some have made major strides, while some continue to be laggards, even when provided sufficient remedy monies, resources and political conditions. A “zero waste” movement continues to spread, from the pro-Green policies dominating the West Coast, to portions of the South, Midwest and East Coast United States, where some regimes make prime candidates for a first-time ever, comprehensive litter composition, measurement and reduction study. Littering and

dumping remain a danger to public health, safety and welfare throughout the United States. [Roadside litter abatement is a subset of public spaces and waterways protection practices.] Public litter prevention and abatement remains a mandated function of American state governance.

Last of all: Starting with the 2017 Scorecard, a new, unique measurement indicator will be added: Those states banning/fee-collecting at retail checkout, non-biodegradable plastic and paper bags that are not at least 40 percent recycled and, those that do not. Research discussed by *Waste 360's* Bryan Staley has shown only 13 percent of American merchant-provided bags are actually recycled, with the rest landfilled, incinerated or winding up as unrestrained rubbish. In 2015, Hawaii will be the first in the nation to enact this bag controlling measure statewide, proven to reduce litter volumes in localities (i.e. San Francisco, CA; Austin, TX; Washington, D.C.; Montgomery County, MD) with existing decrees in effect.

## Notes

<sup>1</sup> *Littering* is the human throwing of trash in small or moderate portions onto the surface of public or private property. *Dumping* is littering on a larger, more voluminous scale (i.e. throwing a 33-gallon bag of garbage onto a roadway or into a stream).

<sup>2</sup> America's District of Columbia and Territories/Possessions (i.e. Puerto Rico, Guam) are NOT STATES and thus are not reviewed and are omitted in this scholarly paper.

<sup>3</sup> See "In Our Century," *American City and County*, November 2012, 44; R. Liggett, A. Loukaitou-Sideris, and H. Iseki, "Bus Stop-Environment Connection: Do Characteristics of the Built Environment Correlate with Bus Stop Crime?" *Transportation Research Record*, No. 1760, Transportation Research Board of the National Academies, (2001): 20-27; Gerry Forbes, *Reducing Litter on Roadsides: NCHRP 39, A Synthesis of Highway Practice* (Washington, DC: Transportation Research Board, 2009); 4.

<sup>4</sup> See Alan Bisbort, "Garbage In, Garbage out: America's Love Affair with Litter," [*Westchester County (New York) Weekly*, October 11, 2001, 9]; "City Image is Trashed by Apathy," (*Corpus Christi Caller-Times*, August 20, 2000); Martin Dodge, "Modification of Littering Behavior: An Exploratory Study," (Logan, UT: Utah State University, 1972, 3); E. Geller, J. Witmer, M. Tusso, "Environmental Interventions for Litter Control," *Journal of Applied Psychology* 62, (1977): 344-351; Kentucky, *The Impact of Litter* (Frankfort, KY: Legislative Research Commission, Research Report # 127, 1975, 1-2); William Shireman, David McFadden, David Newdorf and Diane Noga, *Can and Bottle Bills: The CALPIRG-ELS Study Group Report* (Stanford, CA: The California Public Interest Group and Trustees of Leland Stanford, Jr. University, 1981, v, 25).

<sup>5</sup> *Traffic Safety Facts 2011: A Compilation of Motor Vehicle Crash Data From The Fatality Analysis Reporting System and the General Estimates System* (Washington, DC: U. S. Department of Transportation, National Highway Traffic Safety Administration, 2013), 146-147 [online] <http://www-nrd.nhtsa.dot.gov/Pubs/811754AR.pdf>

<sup>6</sup> Gerry Forbes, *Reducing Litter on Roadsides*, 4.

<sup>7</sup> See S. Spacek, "Do Mess with it: A Sociopolitical Study of Littering and The Role of Southern and Nearby States" (San Marcos, TX: Texas State University, 2004, 22-23) [online] <https://digital.library.txstate.edu/handle/10877/3763> and <http://www.slideshare.net/stevewonder2/do-mess-with-it-a-sociopolitical-study-of-littering-and-role-of-southern-and-nearby-states-2004>

<sup>8</sup> Robert Bullard, *Dumping in Dixie: Race, Class and Environmental Quality* 3rd ed. (Boulder, CO: Westview Press, 2000, 97); Robert Bullard and Beverly Wright, "Blacks and the Environment," *Humboldt Journal of Social Relations* 14 (Summer 1987): 165-184; Augustus Cochran, *Democracy Heading South: National Politics in the Shadow of Dixie*. (Lawrence KS: University Press of Kansas, 2001, 226); John Ockels, *Local Control of Illegal Dumping*, (Pottsboro, TX: Little Mineral Press, 2003, 11); Joel Epstein and Theodore Hammett, *Law Enforcement Response to Environmental Crime*, J28:23:L41 (Washington, DC: U.S. Department of Justice, National Institute of Justice, Office of Justice Programs, 1995, xi).

<sup>9</sup> Daniel Henning, *Environmental Policy and Administration* (New York City: American Elsevar, 1974, 105).

<sup>10</sup> Gerry Forbes, *Reducing Litter on Roadsides*, 1-2.

<sup>11</sup> Melvin Dubnick and George Frederickson, *Public Accountability: Performance Measurement, the Extended State and the Search for Trust* (Washington, DC: The Kettering Foundation, 2011, 5, 9, 16); Gerry Forbes, *Reducing Litter on Roadsides*, 5.

<sup>12</sup> "Unstructured Data: A Big Deal in Big Data," *Federal Computer Week*, March 2014, p. 21; Bryan Staley, "Research in Review," *Waste 360*, November/December 2013, p. 28.

<sup>13</sup> Stephen Goldsmith, "Open Data's Road to Better Transit," *Government Technology*, October 2013, p. 8

<sup>14</sup> Katherine Barrett and Richard Greene, "False Transparency," *Governing*, December 2013, p. 68.

<sup>15</sup> Barrett and Greene, "When to Apply the Success Meter," *Governing*, June 2013, p. 72.

<sup>16</sup> Chaz Miller, "Going Down," *Waste 360*, April 2014, p. 68.

<sup>17</sup> Katherine Barrett and Richard Greene, "Get Out the Rulers," *Governing*, September 2013, p. 60.

<sup>18</sup> Principles of "Open" Data include information being *Non-Private*, *Accessibility*, *Well-Described*; *Reusable*; *Complete*; *Timely*; *Manageable*. The article, "Putting Open Data to Work" by Troy Schnieder, *Federal Computer Week*, June 2013, p. 29, provides more informative details.

<sup>19</sup> Barrett and Greene, "Get Out the Rulers," *Governing*, September 2013, p. 60.

<sup>20</sup> *Source Reduction* is a waste prevention effort--an endeavor in diminishing the amount of litter or garbage generated or thrown away by both people and mechanical waste producers. The article "Solid Waste" by Pollution Issues [online] <http://www.pollutionissues.com/re-sy/solid-waste.html> provides more informative detail.

<sup>21</sup> Chaz Miller, "Going Down," *Waste 360*, April 2014, p. 68.

<sup>22</sup> See Alan Bisbort, "Garbage In, Garbage out: America's Love Affair with Litter," 9; Kentucky, *The Impact of Litter*, 31.

<sup>23</sup> Organizations include The Sierra Club; Keep America Beautiful; Environmental Defense Fund.

<sup>24</sup> Maine and Vermont are the only two U.S. states lacking an Adopt-a-Highway program.

<sup>25</sup> Pamela Murphy, ed., *The Garbage Primer: A Handbook for Citizens* (New York City: Lyons and Burford, 1993, 35).

<sup>26</sup> William Shireman, David McFadden, David Newdorf and Diane Noga, *Can and Bottle Bills*, vii-viii; Pamela Murphy, *The Garbage Primer: A Handbook for Citizens*, 35.

<sup>27</sup> Joel Epstein and Theodore Hammett, *Law Enforcement Response to Environmental Crime*, 1.

<sup>28</sup> Kentucky, *The Impact of Litter*, 2; John Ockels, *Local Control of Illegal Dumping*, 19.

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- <sup>29</sup> Alan Bisbort, “Garbage In, Garbage out: America’s Love Affair with Litter,” 9; Joel Epstein and Theodore Hammett, *Law Enforcement Response to Environmental Crime*, xi; University of Tennessee, National Center for Environmental Decision Making Research. “Review Laws,” in *Decision Maker’s Guide to Controlling Litter and Illegal Dumping* (Knoxville, TN: University of Tennessee, 2000) [online] [www.ncedr.org/guides/litter/step41.htm](http://www.ncedr.org/guides/litter/step41.htm)
- <sup>30</sup> Francis McAndrew, *Environmental Psychology* (Pacific Grove, CA: Brooks/Cole Publishing, 1993, 272). Police in New York and other states are allowed to impound and sell a driver’s vehicle charged with repeat or felonious littering/dumping.
- <sup>31</sup> Joel Epstein and Theodore Hammett, *Law Enforcement Response to Environmental Crime*, 43.
- <sup>32</sup> S. Spacek, “The 2008 American State Litter Scorecard” [online] <http://www.dot.state.mn.us/adopt/files/AmericanStateLitterScorecard.pdf> and <http://www.slideshare.net/stevewonder2/the-american-state-litter-scorecard-presentation>
- <sup>33</sup> Earl Babbie, *The Practice of Social Research*, 9th ed. (Belmont, CA: Wadsworth-Thompson Learning, 2001, 111, 195, 316).
- <sup>34</sup> Katrina Brown Hunt, “America’s Dirtiest Cities,” *TRAVEL+LEISURE*, September 2012, <http://www.travelandleisure.com/articles/americas-dirtiest-cities>; U. S. Department of Commerce, U. S. Census Bureau, “Annual Estimates of the Population for the United States: July 1, 2011 to July 1, 2012.”
- <sup>35</sup> “Measuring Transportation Investments: The Road to Results.” Pew Trusts and The Rockefeller Foundation, May 2011.
- <sup>36</sup> “What’s Your State’s Grade?” [http://www.stateintegrity.org/your\\_state](http://www.stateintegrity.org/your_state)
- <sup>37</sup> New Jersey, (Trenton, NJ: Department of the Treasury), Personal Emails to Steve Spacek, January 2014; William Shireman, David McFadden, David Newdorf and Diane Noga, *Can and Bottle Bills*, vii-viii.
- <sup>38</sup> Container Recycling Institute, “States with Bottle Deposit Rules,” 2006; Susan Collins, Container Recycling Institute, Personal Email to Steve Spacek, January 2014; Chaz Miller, Personal Email to Steve Spacek, February 2014; William Shireman, David McFadden, David Newdorf and Diane Noga, *Can and Bottle Bills*, vii-viii.
- <sup>39</sup> Susan Collins, Container Recycling Institute, Personal Email to Steve Spacek, January 2014; Chaz Miller, Personal Email to Steve Spacek, February 2014; Debra Strong, *Recycling in America*, 2nd ed. (Santa Barbara, CA: ABCCLIO, 1997, 96).
- <sup>40</sup> State Departments of Transportation and Environmental Protection, Administration, Agencies, Cabinets, Personal Emails to Steve Spacek, January, February, March, 2014.
- <sup>41</sup> Layne Piper, Personal Email to Steve Spacek, February 2014; “State Environmental Budgets and Budget Plans, FY 2012,” (Washington, DC: Environmental Council of the States—used with written permission); U. S. Department of Commerce, U. S. Census Bureau, “Annual Estimates of the Population for the United States: July 1, 2011 to, July 1, 2012.”
- <sup>42</sup> James Thompson and Ian Trueblood, “US Landfill Volumes” (San Diego, CA: Waste Business Journal, 2014—used with written permission); U. S. Department of Commerce, U. S. Census Bureau, “Annual Estimates of the Population for the United States, July 1, 2011 to July 1, 2012.”
- <sup>43</sup> “2011 National Traffic Safety Facts: A Compilation of Motor Vehicle Crash Data from the Fatality Analysis Reporting System and the General Estimates System,” U.S. Department of Transportation, National Highway Traffic Safety Administration; U. S. Department of Commerce, U. S. Census Bureau, “Annual Estimates of the Population for the United States, July 1, 2011 to July 1, 2012.”
- <sup>44</sup> GMAC Insurance, “2011 GMAC Insurance National Drivers Test.”
- <sup>45</sup> See “New Mexico, America’s Deadliest Debris-Caused Vehicle Accident State.” <http://www.free-press-release.com/news-new-mexico-america-s-deadliest-debris-caused-vehicle-accident-state-1390930826.html> New Mexico led all American states for the highest chance to die from a debris-litter attributed roadway crash during a Scorecard measurement period.
- <sup>46</sup> Bryan Staley, “Research in Review,” *Waste360*, November/December 2013, 28-29.
- <sup>47</sup> Melvin Dubnick and George Frederickson, *Public Accountability: Performance Measurement, the Extended State and the Search for Trust* (Washington, DC: The Kettering Foundation, 2011, 62)
- <sup>48</sup> Melvin Dubnick and George Frederickson, *Public Accountability: Performance Measurement, the Extended State and the Search for Trust*, p. 33.
- <sup>49</sup> Dubnick and Frederickson, p. 20.
- <sup>50</sup> Katherine Barrett and Richard Greene, “The Corporate Playbook,” *Governing*, January 2014, p. 63.
- <sup>51</sup> Gallup Organization, “Environmental Poll, November 21, 2000,” *Government versus the Environment*, Donald Leal and Roger Meiners, eds. (Lanham, MD: Rowman and Littlefield Publishers, 2003, 2-3).

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# **APPENDIX**

## **Examples of Objective and Subjective Measurement Data**

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## Objective Data

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**(OB1) States with Litter Taxation (2013)**

<b>State</b>	<b>Score</b>
New Jersey	+5.0
Ohio	+5.0
Rhode Island	+5.0
Virginia	+5.0
Washington	+5.0
All Other States	0.0

**Sources: New Jersey Department of Treasury; Shireman, McFadden, Newdorf and Noga.**

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**(OB2) States with Container Deposit Rules/Legislation (2013)**

<b>State</b>	<b>Score</b>
California	+5.0
Connecticut	+5.0
Hawaii	+5.0
Iowa	+5.0
Maine	+5.0
Massachusetts	+5.0
Michigan	+5.0
New York	+5.0
Oregon	+5.0
Vermont	+5.0
All Other States	0.0

**Sources: Container Recycling Institute; Miller, Chaz; Shireman, McFadden, Newdorf and Noga.**



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**(OB3) States with Comprehensive Recycling Rules/Legislation (2013)**

<b>State</b>	<b>Score</b>
California	+5.0
Connecticut	+5.0
Delaware	+5.0
Florida	+5.0
Maine	+5.0
Maryland	+5.0
New Jersey	+5.0
Oregon	+5.0
Pennsylvania	+5.0
Rhode Island	+5.0
Vermont	+5.0
Washington State	+5.0
Wisconsin	+5.0
All Other States	0.0

**Sources:** Container Recycling Institute; Miller, Chaz; National Solid as cites in Strong.

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### (OB4) Authorities with State-Specific Litter Prevention Slogans (2014)

NOTE: Adopt-a-Highway is a 48-state, national litter abatement PROGRAM— It's NOT a unique, state-specific anti-littering SLOGAN that can apply to ALL public spaces away from a roadway, including parks, sidewalks, trails, waterways, beaches.

State	Slogan	Score
Alabama	Don't Drop it on Alabama	+5.0
Alaska	Don't Trash Alaska	+5.0
Arizona	Don't Trash Arizona	+5.0
Arkansas	Keep Arkansas Beautiful	+5.0
California	Don't Trash California	+5.0
Colorado	CLEAN COLORADO: Spruce Up, Colorado	+5.0
Connecticut	NO State-Specific Slogan/Campaign. CT officials failed to reply.	0.0
Delaware	NO State-Specific Slogan/Campaign. Prior Slogan Abandoned.	0.0
Florida	TAKE PRIDE IN FLORIDA: Keep Florida Beautiful	+5.0
Georgia	GEORGIA: Litter. It Costs YOU!	+5.0
Hawaii	NO State-Specific Slogan/Campaign. HI officials failed to reply.	0.0
Idaho	Idaho is Too Great To Litter (Trimmed Campaign Actions)	+5.0
Illinois	Love the Land of Lincoln— Please Don't Litter!	+5.0
Indiana	NO State-Specific Slogan/Campaign. IN officials failed to reply.	0.0
Iowa	Keep Iowa Beautiful	+5.0
Kansas	Kansas! Don't Spoil It	+5.0
Kentucky	NO State-Specific Slogan/Campaign.	0.0
Louisiana	Don't Trash Louisiana	+5.0
Maine	NO State-Specific Slogan/Campaign. ME officials failed to reply.	0.0
Maryland	Keep Maryland Beautiful. Keep the Free State Litter Free	+5.0
Massachusetts	NO State-Specific Slogan/Campaign. Prior Slogan Abandoned. MA officials failed to reply.	0.0

Michigan	NO State-Specific Slogan/Campaign. MI officials failed to reply.	0.0
Minnesota	NO State-Specific Slogan/Campaign. Prior Slogan Abandoned.	0.0
Mississippi	Think Green, Keep Mississippi Clean	+5.0
Missouri	No MOre Trash	+5.0
Montana	NO State-Specific Slogan/Campaign. MT officials failed to reply.	0.0
Nebraska	Nebraska: Don't Waste It	+5.0
Nevada	NO State-Specific Slogan/Campaign. NV officials failed to reply.	0.0
New Hampshire	Litter-Free New Hampshire	+5.0
New Jersey	NO State-Specific Slogan/Campaign. NJ officials failed to reply.	0.0
New Mexico	Toss No Mas: Don't Trash New Mexico	+5.0
New York	Let's Pick It Up, New York	+5.0
North Carolina	North Carolina's Mean About Clean!	+5.0
North Dakota	Keep North Dakota Clean	+5.0
Ohio	NO State-Specific Slogan/Campaign. Prior Slogan Abandoned.	0.0
Oklahoma	Oklahoma, Keep Our Land Grand	+5.0
Oregon	NO State-Specific Slogan/Campaign	0.0
Pennsylvania	Keep Pennsylvania Beautiful	+5.0
Rhode Island	NO State-Specific Slogan/Campaign Prior Slogan Abandoned.	0.0
South Carolina	NO State-Specific Slogan/Campaign. Prior Slogan Abandoned. SC officials failed to reply.	0.0
South Dakota	NO State-Specific Slogan/Campaign. SD officials failed to reply.	0.0
Tennessee	Stop Litter! Tennessee's Had Enough!!!	+5.0
Texas	Don't Mess With Texas	+5.0
Utah	LITTER HURTS! Utah	+5.0
Vermont	NO State-Specific Slogan/Campaign. VT officials failed to reply.	0.0
Virginia	NO State-Specific Slogan/Campaign. Prior Slogan Abandoned. VA officials failed to reply.	0.0

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Washington	LITTER and IT WILL HURT. (Trimmed Campaign Actions thru 2015)	+5.0
West Virginia	West Virginia: Make It Shine	+5.0
Wisconsin	NO State-Specific Slogan/Campaign	0.0
Wyoming	NO State-Specific Slogan/Campaign. Prior Slogan Abandoned	0.0

**Sources: 50 U.S. State Departments of Transportations, Administrations, Agencies, Cabinets.**

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**(OB8) Percent of State Total Population as “Profiled Litterers,” age 16-25 (2012)**

<b>State</b>	<b>Percent Population Ages 16-25</b>	<b>Score</b>
Utah	23.80	0.0
North Dakota	16.02	0.0
Rhode Island	15.26	0.0
Alaska	15.08	0.0
California	14.83	0.0
Texas	14.63	+0.5
Mississippi	14.58	+0.5
Georgia	14.40	+0.5
Kansas	14.37	+0.5
Vermont	14.31	+0.5
Louisiana	14.30	+1.0
Indiana	14.29	+1.0
Michigan	14.28	+1.0
Oklahoma	14.21	+1.0
Idaho (a1)	14.17	+1.0
Iowa (a1)	14.17	+1.0
Massachusetts	14.13	+1.5
Arizona	14.08	+1.5
New York	14.06	+1.5
Alabama	14.04	+1.5
South Carolina	14.03	+1.5
Delaware	14.00	+2.0
New Mexico	13.99	+2.0
South Dakota	13.98	+2.0
Illinois	13.88	+2.0
Virginia	13.86	+2.0
Wyoming	13.85	+2.5
North Carolina	13.83	+2.5
Missouri	13.81	+2.5
Nebraska	13.78	+2.5
Pennsylvania	13.76	+2.5
Arkansas	13.70	+3.0
Ohio (a2)	13.64	+3.0

Wisconsin (a2)	13.64	+3.0
Maryland	13.60	+3.0
Colorado (a3)	13.58	+3.0
Tennessee (a3)	13.58	+3.0
Montana	13.55	+3.5
Kentucky	13.54	+3.5
Washington	13.53	+3.5
Connecticut	13.49	+3.5
New Hampshire	13.46	+3.5
Minnesota	13.39	+4.0
Hawaii	13.35	+4.0
Nevada	13.31	+4.0
Oregon	13.15	+4.0
New Jersey	12.91	+4.0
Florida	12.90	+4.5
West Virginia	12.80	+4.5
Maine	12.39	+4.5

**(a1)...(a3) Tied Scores**

**Source: U.S. Census Bureau; State-ordered Litter Studies.**

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# Subjective Data

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**(SU2) State Licensed Driver Knowledge of Littering and other Road Laws (2011)**

<b>State</b>	<b>Score</b>
Hawaii	0.0
Maryland	0.0
New Jersey	0.0
Massachusetts	0.0
Mississippi	0.0
New York	+0.5
Rhode Island (a1)	+0.5
Georgia (a1)	+0.5
Nevada	+0.5
Illinois	+0.5
Alaska	+1.0
Louisiana	+1.0
New Hampshire	+1.0
Florida	+1.0
North Carolina	+1.0
Connecticut	+1.5
California (a2)	+1.5
Texas (a2)	+1.5
South Carolina (a3)	+1.5
Delaware (a3)	+1.5
Alabama	+2.0
Tennessee (a4)	+2.0
Arizona (a4)	+2.0
Arkansas	+2.0
Pennsylvania (a5)	+2.0
Virginia (a5)	+2.0
North Dakota	+2.5
Kentucky	+2.5
Utah	+2.5
West Virginia	+2.5
Michigan	+2.5
New Mexico (a6)	+3.0
Ohio (a6)	+3.0
Vermont	+3.0
Maine	+3.0
Oklahoma (a7)	+3.0
Washington (a7)	+3.0
Montana	+3.5
Wisconsin (a8)	+3.5
Idaho (a8)	+3.5
Wyoming (a9)	+3.5
South Dakota (a9)	+3.5
Missouri (b 1)	+4.0



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Indiana (b 1)	+4.0
Nebraska (b1)	+4.0
Oregon (b1)	+4.0
Minnesota	+4.0
Colorado	+4.5
Iowa	+4.5
Kansas	+4.5

**(a1...a9) States with Tie Scores**

**(b1) States with Quadruple Tie Scores**

**Note: Tied States all receive same score if outside increments of five (i.e. PA/VA; OK/WA)**

**Source: GMAC Insurance.**

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**(SU3) Overall Corruption Risk in Public Service Activities by State Governments (2013)**

<b>State</b>	<b>Score</b>
Georgia	0.0
South Dakota	0.0
Wyoming	0.0
Virginia	0.0
Maine	0.0
South Carolina	0.5
Michigan	0.5
North Dakota	0.5
Nevada	0.5
Idaho	0.5
Maryland	1.0
New Mexico	1.0
Oklahoma	1.0
New York	1.0
Utah	1.0
New Hampshire	1.5
Ohio	1.5
Colorado	1.5
Alaska	1.5
Montana	1.5
Arizona	2.0
West Virginia	2.0
Arkansas	2.0
Texas	2.0
Vermont	2.0
Minnesota	2.5
Wisconsin	2.5
Indiana	2.5
Delaware	2.5
North Carolina	2.5
Pennsylvania	3.0
Kentucky	3.0
Florida	3.0
Alabama	3.0
Missouri	3.0
Louisiana	3.5
Oregon	3.5
Hawaii	3.5
Massachusetts	3.5
Illinois	3.5

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Kansas	4.0
Rhode Island	4.0
Tennessee	4.0
Iowa	4.0
Mississippi	4.0
Nebraska	4.5
California	4.5
Washington	4.5
Connecticut	4.5
New Jersey	4.5

Source: [Stateintegrity.org](http://Stateintegrity.org)